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# **India's Reactions to Nuclear Developments in Pakistan**

Special National Intelligence Estimate



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# SNIE 31/32-81

# INDIA'S REACTIONS TO NUCLEAR DEVELOPMENTS IN PAKISTAN

Information available as of 1 September 1981 was used in the preparation of this Estimate.

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# THIS ESTIMATE IS ISSUED BY THE DIRECTOR OF CENTRAL INTELLIGENCE.

## THE NATIONAL FOREIGN INTELLIGENCE BOARD CONCURS.

The following intelligence organizations participated in the preparation of the Estimate:

The Central Intelligence Agency, the Defense Intelligence Agency, the National Security Agency, and the intelligence organizations of the Departments of State and Treasury.

### Also Participating:

The Assistant Chief of Staff for Intelligence, Department of the Army

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#### **OVERVIEW**

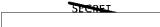
Pakistan is pursuing a nuclear explosives development program which, if carried to the production of weapons, would be regarded by New Delhi as a direct threat to India and to its regional and global ambitions. The available evidence is insufficient to predict India's response to this threat. Prime Minister Gandhi has dealt with the problem through indirect pressure and, although that course is unlikely to be adequate over the long run, we do not believe that Gandhi has made a decision to take any direct action. India is developing contingency options for destroying Pakistan's nuclear facilities, for responding to a Pakistani nuclear test by exploding an Indian test device, and for coping with an established Pakistani nuclear weapons capability.

An uncertainty in estimating what Gandhi will do about the Pakistani problem in the near term is the extent of Indian concern about US arms sales to Islamabad, particularly the F-16 aircraft. India has long exaggerated the threat posed by US arms sales to Pakistan in order to discourage the United States from providing Islamabad with sophisticated arms.

The US proposal to sell F-16s to Pakistan is now being associated by New Delhi with the potential Pakistani nuclear threat. Reporting received since 7 June, when Israel used F-16s to destroy a reactor in Iraq, indicates that high-level officials in the Indian Government are genuinely alarmed about F-16s going to Pakistan and the extent to which this limits India's options for dealing with Pakistan's nuclear activities. India fears that, with the F-16, Pakistan has the capacity to counterattack effectively against some Indian nuclear facilities. Moreover, it fears that a rearmed Pakistan backed by a US commitment will become more adventurous and hostile toward India.

In the extreme case, if Indian concerns increase over the next two or three months, we believe the conditions could be ripe for a decision by Prime Minister Gandhi to instigate a military confrontation with Pakistan, primarily to provide a framework for destroying Pakistan's nuclear facilities. We judge that the sense of urgency in New Delhi is not likely to dissipate in the coming months.

Over the next 12 to 24 months, our estimate nonetheless is that India will follow a wait-and-see strategy—waiting for Pakistan to conduct



a nuclear test, with the intention of exploding an Indian device in response and assessing Pakistan's further ambitions. If Pakistan persists toward nuclear weapons production, or if Pakistan moves to acquire a strategic stockpile of nuclear material, then New Delhi will face a choice of accepting the high probability of a nuclear arms race or destroying Pakistan's nuclear facilities. Any final Indian decision is likely to depend critically on political and strategic circumstances prevailing at that time.

#### DISCUSSION

#### **Present Situation**

1. India is following Pakistani progress toward a nuclear weapons production capability with growing concern. In India's view, Pakistani production of nuclear weapons would pose a direct threat to Indian national security. India's broader goal of becoming a major global power through its preeminence in South Asia would be threatened by a Pakistani nuclear challenge to such preeminence. It would dilute the effectiveness of India's superiority in conventional military capabilities and would require New Delhi to authorize a costly Indian nuclear weapons production program. Therefore, the Indian Government has been considering ways to prevent Pakistan from becoming a nuclear weapons state.

2. Pakistan is approaching a capability to produce plutonium and highly enriched uranium for use in a nuclear explosives development program. Prime Minister Gandhi evidently responded to the threat by authorizing Indian nuclear test preparations. In February excavation was begun in the Thar Desert to permit the underground explosion of an Indian test device on short notice.

minimized by a resumption of the peaceful nuclear explosive (PNE) program.<sup>1</sup>

4. A small group of Indian strategists who have

argued for nuclear weapons production since China's nuclear test program began are now citing the Pakistani nuclear program as a requirement for an Indian nuclear deterrent on two fronts. Prime Minister Gandhi approved the publication of a long editorial by one of these nuclear weapons advocates. Work under way is intended to give India by late 1982 its first supply of plutonium totally unencumbered by any international controls and therefore usable in nuclear weapons. We believe, however, that India probably is preparing for contingencies rather than beginning a weapons production program. As New Delhi's primary objective is to prevent Pakistan from producing nuclear weapons, Indian deployment of nuclear weapons would be

1 There is some evidence that India's plans for resuming its PNE test program include efforts to develop a thermonuclear device. After India's test in 1974, Indian scientists spoke of plans to develop a thermonuclear PNE as a logical next step in their explosives program. That program appears to have ceased shortly after the 1974 test, but recent indications are that various laboratories in India's Department of Atomic Energy have been tasked to work on the development of a hydrogen test device. Estimates of the time and effort required to design a successful thermonuclear device vary widely, but the complexity of the design problem probably would not deter the Indians from attempting the development of a thermonuclear explosive. India is aware that China's third test was thermonuclear and that it occurred only 17 months after the first Chinese test in 1964, and much useful information has been published since then. Pakistan's explosion of an initial fission device would pale in the light of an Indian thermonuclear test, serving New Delhi's objective of showing to Islamabad the futility of a nuclear arms race and attempting to show to the rest of the world that India's regional preeminence remained secure.

likely in the near term only if other efforts failed to stop the Pakistanis.<sup>2</sup>

#### Indian Strategy

5. Since June high-level strategists in the Ministry of Defense and Ministry of External Affairs have been focusing more closely on various plans for military action against Pakistan. The impetus almost certainly comes from Israel's use of US-supplied F-16s to destroy the Osirak nuclear reactor in Iraq and the announcement days later of US plans to supply F-16s to Pakistan. Before the Israeli raid, Indian leaders may have been resigned to the sale of F-16s over their protests and they seemed to regard Pakistan's nuclear activities as a separate threat. Since then, however, Indian concern about the two threats has intensified. Top officials in the defense establishment have expressed concern about possible Pakistani attacks against the Indian nuclear facilities, and similar warnings by top officials in the Ministry of External Affairs indicate that this reaction by the military probably is widely shared. The Indian Government probably is concerned that its options are narrowing—that its contingency plans for stopping the Pakistani nuclear program by force could not be implemented without inviting reciprocal attacks which, if conducted with F-16s, could not be adequately thwarted by existing Indian air defenses.

6. In mid-July the Indian service chiefs reportedly were to consider Indian arms requirements as a result of Pakistan's expected acquisition of US arms. The results of the intended meeting are not known. At the time of the meeting a senior Indian defense official reportedly was considering the possibilities of starting a military confrontation with Pakistan before F-16s began to arrive. Earlier in July a senior Indian defense official stated that, though no decision had been made to attack Pakistan, contingency plans calling for a late 1981 surprise attack did exist. India reportedly would use border skirmishes to justify such an attack. India's exaggerated media treatment of border incidents in recent weeks indicates that the government may be keeping this option ready.

7. India's ability to carry out the military option is not in question.

The enrichment plant would be a soft target, particularly if it were in operation at the time of attack (when the spinning centrifuges would be likely to self-destruct from the concussion of explosions). No dangerous radioactive materials would be released from the plant. The difficulty of acquiring necessary components and rebuilding the plant probably would rule out production of highly enriched uranium for several years.

8. Damage to the reprocessing plants would be more uncertain because of the extensive concrete shielding surrounding the equipment. Nevertheless, enough damage almost certainly would be done in an initial strike to preclude any operation of the facilities for many months. Problems resulting from local radioactive contamination could make repairs infeasible indefinitely.<sup>3</sup>

#### **Probable Developments**

9. Prime Minister Gandhi probably has not yet made a decision to exercise a military option against Pakistan. In the extreme case, if India's concern about deliveries of F-16s to Pakistan increases before the optimum time for exercising the military option (in October or November, according to one report), the conditions could be ripe for Prime Minister Gandhi to carry out the contingency strike plans. Our best estimate, however, is that India will follow a wait-andsee strategy. As the shock of the Israeli strike fades. Indian military strategists probably will become more confident of their ability to cope with the Pakistani F-16s before the first deliveries—the timing of which is still under discussion. Political strategists probably will focus attention on the potentially extreme political costs involved in attacking Pakistan, including the possibility of a Muslim oil embargo against India.

10. The Indians now believe that the Pakistanis would be able to conduct a nuclear test within a year.

<sup>&</sup>lt;sup>2</sup> For a discussion of incentives and disincentives for India to produce nuclear weapons, see the annex.

<sup>&</sup>lt;sup>3</sup> The reprocessing facilities will begin to contain highly radioactive material as soon as they begin to treat irradiated nuclear fuel, or to store such fuel. India's apparent plan earlier this year to await a Pakistani test before taking any serious action suggests that Gandhi did not consider the possibility of local radioactive contamination to be a driving factor in determining the feasibility or timing of an Indian attack

Gandhi has been told that, if the United States were to halt the sale of F-16s, Pakistan would undoubtedly test and produce nuclear weapons. India probably would react to a Pakistani test by conducting an Indian test in response. New Delhi would hope that an Indian test (and the predictable wave of international pressure) would deter the Pakistanis from proceeding with a nuclear weapons program, but in all probability Pakistan would continue producing weapons-usable nuclear material. If that were the case, India would have to consider whether to try to destroy Pakistan's nuclear facilities before a nuclear stockpile rendered the military option ineffective. Alternatively, Pakistan may decide to delay a nuclear test while awaiting the full implementation of the US arms deal. If Pakistan defers nuclear testing, the Indians will face the prospect of Pakistani accumulation of a significant stockpile of nuclear material for eventual weapons use. Thus, in this case too, India would confront a decision either to strike Pakistan's nuclear facilities or to face a high probability of eventual Pakistani production of nuclear weapons.

11. A critical factor in estimating what Gandhi would do, when ultimately faced with the choice of either attacking Pakistan or allowing Pakistan to produce a stockpile of weapons-usable nuclear material, is her attitude toward exercising India's own nuclear weapons option. If the Indians were adamantly opposed to developing their own nuclear weapons, they probably would try to destroy Pakistan's nuclear facilities before a significant stockpile of nuclear material could be produced. If, on the other hand, the Indians are seriously considering the establishment of their own nuclear strike capability against China, destruction of Pakistan's nuclear facilities would become a less attractive option. From the Indian perspective, it would have the serious drawback of inviting Chinese intervention. Moreover, the international reaction to an Indian attack probably would be severe. Reliance on the option of building a nuclear deterrent force to deal with the Pakistani nuclear threat would extend India's time for reaction until nearly the point when Pakistan actually began to produce deployable nuclear weapons, which probably would not occur before late 1983. This would give India time to conduct additional PNE tests, perhaps permitting a thermonuclear test.

recommendations have recently been made in favor of exercising the nuclear weapons option and that the detailed recommendations were circulated widely in the Indian Government. We have also noted that Gandhi has at least some interest in this viewpoint. But we do not know whether the Prime Minister favors that course, and we have not observed any activity by the Indian military that would suggest authorization for a nuclear weapons program. The considerations discussed in the annex suggest that India would ultimately choose to meet the Pakistani nuclear challenge by establishing a superior nuclear force, but the decision is likely to depend critically on the prevailing political and strategic circumstances.

13. If India chose to rely on nuclear deterrence, the present pace of Pakistan's nuclear program would point to nuclear testing by both countries in late 1982 or 1983. India's basic objectives (as noted in paragraph 1) would require Indian efforts to be more impressive than Pakistan's accomplishments. It is possible that Pakistan would be sufficiently impressed by India's capability to decide that its best course lay in avoiding a nuclear arms race. Even so, mutual suspicion and miscalculation probably would defeat such restraint.

14. If, on the other hand, India chose to attack Pakistan's nuclear facilities, the hostilities would escalate quickly.

Pakistan would need outside help to avoid a defeat, presenting the United States with the dilemma of direct involvement or seeing the defeat of a security partner. The Soviet Union might attempt to exploit the hostilities, for example, by launching limited strikes under Afghan colors against insurgent camps across the Pakistani border.

<sup>&#</sup>x27;For a discussion of possible Soviet actions against Pakistan, see SNIE 11/32-81 (See et \_\_\_\_\_\_\_ The Soviet Threat to Pakistan, 12 August 1981.

#### **ANNEX**

## India's Nuclear Weapons Option

The strategic argument in tavor of producing nuclear weapons applicable to use against China includes two Indian considerations. The first is that China poses a threat to Indian freedom of action in South Asia. Either by coercive diplomacy or by supporting insurrection in small neighboring states. China is likely eventually to restrict India's control over events in the region unless deterred by a strong and determined government in New Delhi. The second consideration is that China poses a more direct threat to India's security because it is likely to encourage and support Pakistani aggression against India by providing military equipment to Islamabad or by tying up Indian troops along the northeastern border during an Indo-Pakistani conflict. Nuclear weapons, according to Indian proponents, would end the present dangerous degree of asymmetry between China's power and that of India and could, in time, produce a climate conducive to improving relations between the two countries.

- 2. Also, Indian nuclear weapons advocates regard production of nuclear weapons as a means to reassert India's regional preeminence in the face of increasing Soviet and US activity in the area. Events in Iran and Afghanistan and the subsequent reactions by superpowers probably have led many Indians, including Gandhi, to conclude that New Delhi is nearly helpless to influence the resolution of important problems in the region. Nuclear weapons, according to some Indian strategists, would lead the superpowers to accord India greater respect, if not as the nation having overall responsibility for maintaining peace in the region—the status to which India ultimately aspires—then at least as an equal participant in resolving regional crises.
- 3. Despite these incentives, there are several technical and political reasons why the Indian Government

might prefer to delay launching a nuclear weapons program. India's early pledges to use its Canadian-supplied research reactor only for peaceful purposes, for example, may make Gandhi reluctant to use this facility for weapons production, and India's other operational reactors are covered by international non-proliferation safeguards. India is building a research reactor and a power reactor that will be able to begin producing unsafeguarded plutonium in large quantities in late 1982, if all proceeds according to plan. Thus, Gandhi would find it expedient to defer weapons production, at least until about 1983. In the meantime, unsafeguarded plutonium from the Canadian-supplied CIRUS reactor could be used to conduct "peaceful" underground nuclear tests.

4. The Indians would have some economic considerations in deciding whether to become a nuclear weapon state. Although the cost of producing a small stockpile of fission bombs would probably not be great, Gandhi probably would realize at the outset that embarking on a nuclear weapons program would entail a commitment to ever-increasing defense budgets. One Indian proposal is to spend \$10 billion over five years—presumably by increasing the defense budget somewhat from its current level of about 3.5 percent of India's gross national product—to pay for the production of several hundred nuclear-armed missiles and aircraft recommended for deployment against China. Another major cost of establishing a nuclear deterrent would be the expense required to

The plan includes using domestically produced heavy water in the reactors. India's persistent problems in producing this water, and its critical need to increase electrical power generating capacity, will create conflicting desires. India will want to start up the power reactor as soon as possible, which means using heavy water available from the Soviet Union under safeguards. The Indians would like to operate the power reactor without safeguards, however, which might require postponing the startup date. India might choose to keep its new research reactor free of safeguards—to support a weapons program—while using safeguarded heavy water in the power reactor to ensure its timely startup; this course would argue for a deferral of overt weapons development until the Soviet Union had finished supplying the desired heavy water.



create a nuclear strike force with adequate personnel, training, and command and control procedures. Hidden costs would take the form of increased requirements for nonnuclear equipment and capabilities—costs relating to enhanced early warning systems, for example.

- 5. Costs would not prohibit India from becoming a nuclear weapon state, but they would relate importantly to the pace at which India's nuclear force would grow. Although India could rapidly outpace Pakistan in the deployment of simple fission bombs without straining its economy, the government would wish to minimize the time between declaring itself a nuclear weapon state and establishing a credible deterrent to Chinese aggression. The present state of Indian nuclear and missile capabilities is such that the creation of a nuclear weapons force in the near future probably would call for a greater infusion of funds—more of a crash effort—than would be required later in the decade.
- 6. India possesses the technology necessary to develop a ballistic missile system of sufficient range and

payload capabilities to strike important Chinese targets. This technology is embodied in work being done by the Indian Department of Space, which has produced and tested a satellite launch vehicle, designated
the SLV-3, similar to the US Scout. Designed to be
capable of placing satellite into a
circular orbit, the system potentially could
deliver a nuclear payload to a
target kilometers distant. A strap-on
booster engine under development could increase
either the range or payload. India, however, lacks the production capability needed to support a ballistic missile program. Also, a more accurate guidance system probably would be required by the military. <sup>2</sup>
Several years probably would be required, therefore,
before India could begin to produce intermediate- range ballistic missiles.
<sup>2</sup> Historically, the military has not been noted to be involved in
the work of India's Department of Space, although the Ministry of
Defense is believed to be developing missile-propulsion and inertial-
guidance systems.

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